

**NETWORK TRANSCEIVER FOR EXTENDING THE BANDWIDTH
OF OPTICAL FIBER-BASED NETWORK INFRASTRUCTURE**

Abstract of the Disclosure

A multimode wavelength division multiplexing (WDM) network transceiver and method includes a plurality of optical transmitters and a multiplexer operatively connected to each optical transmitter for receiving optical communications signals and multiplexing the signals into a multimode wavelength division multiplexed optical communications signal. A demultiplexer receives a multimode wavelength division multiplexed optical communications signal and demultiplexes the signal into a plurality of demultiplexed optical communications signals that are then received and detected within a plurality of optical receivers.